

**Amendment and Response**

Applicant: Ian Colloff et al.

Serial No.: 09/977,604

Filed: October 21, 2001

Docket No.: 10011311-1/A310.257.101

Title: METHOD AND APPARATUS FOR INPUT/OUTPUT PORT MIRRORING FOR NETWORKING  
SYSTEM BRING-UP AND DEBUG

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**IN THE CLAIMS**

Please cancel claim 1 without prejudice.

Please add claims 2-17.

1. (Cancelled)
2. (New) A networking system, comprising:
  - a plurality of ports, each adapted to send and receive data;
  - a switch core having a first channel configured to receive a logical input flow from each of the plurality of input ports, and having a second channel configured to receive a raw input flow from each of the plurality of input ports, wherein each logical input flow is carried by its corresponding raw input flow; and
  - a plurality of port mirrors selectable from the plurality of ports, wherein each of the plurality of port mirrors is configured to produce a duplicate copy of at least one of the logical input flow and the raw input flow available at a selected port.
3. (New) The networking system of claim 2, wherein each of the plurality of ports comprises:
  - an ingress channel adapted to send input flow data to the switch core;
  - an egress channel adapted to receive output flow data from the switch core; and
  - a multiplexer adapted to provide raw input flow to at least one of the switch core and the egress channel.
4. (New) The networking system of claim 3, wherein the switch core comprises a cross bar switch.
5. (New) The networking system of claim 3, wherein the switch core comprises a semiconductor chip.

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6. (New) The network system of claim 3, wherein the switch core comprises a computer-readable medium having computer-executable instructions.
7. (New) The networking system of claim 3, comprising a scheduling circuit, wherein the scheduling circuit is configured to establish connections for each output node that allows an input traffic unit to be passed over each established connection.
8. (New) A networking system comprising:
  - means for receiving and sending input flow data;
  - means for switching at least one of a raw input flow data and a logical input flow data; and
  - means for debugging the networking system, wherein the means for debugging includes a plurality of port mirrors.
9. (New) The networking system of claim 8, wherein the plurality of port mirrors are configured to produce a duplicate copy of the flow originating from a selected port.
10. (New) The networking system of claim 8, wherein the means for switching raw input flow data comprises a cross bar switch.
11. (New) The networking system of claim 8, wherein the means for switching comprises a means for providing multicast connections between an input node and a plurality of output nodes.
12. (New) The networking system of claim 8, wherein the means for switching logical input flow data comprises a cross bar switch.
13. (New) A method of debugging a networking system, the method comprising:
  - selecting a port mirror from a plurality of ports of the networking system;
  - generating a stream of traffic units at a test equipment configured to communicate with the networking system through one of the plurality of ports;

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receiving the stream of traffic units at one of the plurality of ports of the networking system;

receiving the stream of traffic units at the selected port mirror, and

comparing the traffic units received at the port mirror to the traffic units generated at the test equipment.

14. (New) The method of claim 13, comprising:

switching the stream of traffic units with a switch core having a first channel configured to receive logical input flow data from each of the plurality of ports and a second channel configured to receive raw input flow data from each of the plurality of ports.

15. (New) The method of claim 14, wherein switching the stream of traffic units at a switch core includes providing multicast connections.

16. (New) The method of claim 13, comprising:

queuing the traffic units at each of the plurality of ports.

17. (New) The method of claim 16, wherein the queuing includes at least one of first-in-first-out queuing and pre-emptive queuing.